Environmental Assessment Program

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Program Mission

To measure and assess environmental conditions in Washington State.

Environmental Threats

Environmental threats include both point and nonpoint sources and range from conventional pollutants, such as fecal coliform bacteria, nutrients, and temperature, to toxic contaminants and invasive aquatic weeds. Most of the monitoring and investigation efforts focus on threats to water or sediment quality, while many of the directed studies are conducted in support of clients in other agency programs.

The focus of these activities is on objectively assessing existing environmental conditions. The agency frequently identifies threats or evaluates cumulative or combined effects stemming from the entire spectrum of environmental threats. Consequently, the relevant and useful information is provided to the agency and other resource management agencies.

Authorizing Laws

- *Federal Clean Water Act*
- *Chapter 90.48 RCW, Water Pollution Control*
- *Chapter 90.71 RCW, Puget Sound Water Quality Protection*
- *Chapter 70.105D RCW, Model Toxics Control Act*
- *Chapter 43.21A RCW, Department of Ecology*
- *Chapter 70.119A.080 RCW, Public Water Systems – Penalties and Compliance*

Constituents/Interested Parties

- *Federal and Local Governments*
- *State Agencies*
- *Tribes*
- *Businesses*
- *Environmental Organizations*
- *General Public*
- *Internal Clients*

Major Activities and Results

Improve Quality of Data Used for Environmental Decision Making

Sound environmental policy and regulatory decisions can only be made if accurate, reliable, and timely data are available to inform decisions. To ensure the reliability and integrity of data used by the agency, the quality assurance officer and staff provide guidance and training on developing Quality Assurance Project Plans, review project proposals, and consult on sampling design requirements and interpretation of results. This quality assurance function is required by the Environmental Protection Agency for entities, such as the Department of Ecology, which receive funding for work involving environmental data. In addition, the agency scientists, modelers, statisticians, chemists, and other specialists interpret technical data, review grantee monitoring plans, and supply information for crucial policy questions, in support of agency mandates. Data collection supports all major state and federal environmental laws.

Result

Environmental decisions are made based upon accurate, reliable, and timely data.

- 100% of all environmental monitoring plans are peer-reviewed, completed before sampling begins, and posted to the Internet.
- Credible scientific data are collected to inform environmental policy decisions.
- Technical assistance is provided to four local grant recipients each quarter.
- Local government grant recipients provide high quality data to Ecology.

Reduce Persistent, Bioaccumulative Toxins (PBTs) in the Environment

Persistent, bioaccumulative toxins (PBTs) are a particular group of chemicals that can significantly affect the health of humans, fish, and wildlife. The agency developed, and the Legislature funded in the 01-03 Biennium, implementation of a long-term strategy designed to reduce PBTs in Washington's environment over the coming years. This strategy will coordinate agency-wide efforts, engage other key organizations and interest groups, and provide for

public education and information on reducing PBTs in the environment. Although the Legislature did not provide funding in the 03-05 Biennium for continued PBT strategy implementation, $100,000 was provided to Ecology to implement House Bill 1002 (Mercury Reduction and Education Act - 2003). During the 2004 session, Ecology plans to request supplemental budget funding to resume implementation of the PBT Strategy. (Authorizing laws - 90.48 and 70.105D RCW)

Result

Public health and environmental impacts associated with PBTs are minimized, and strategies are developed and implemented to reduce and eliminate these harmful chemicals.

- Reduce mercury releases from dental offices to the environment through the successful implementation of a Memorandum of Understanding with the Washington State Dental Association.
- Conduct a survey assessing mercury amalgam recovery efforts by September 2004.
- Increase fluorescent lamp recycling rate in Washington to 30% by June 2004 and 40% by June 2005.

Measure Contaminants in the Environment by Performing Laboratory Analyses

The Manchester Environmental Laboratory is a full-service environmental chemistry laboratory operated jointly by the United States Environmental Protection Agency Region 10 and the Department of Ecology. The laboratory provides technical, analytical, and sampling support for chemistry and microbiology for multiple programs in the agency and supports work conducted under mandates such as the Federal Clean Water Act; Water Pollution Control Act; Puget Sound Water Quality Protection Act; and Model Toxics Control Act.

Result

Operation of a full-service environmental testing laboratory that provides defensible and accurate analytical and sampling support to the agency and other state and local governments.

- Maintain the goal of achieving 100% acceptable performance testing results.
- Provide scientifically sound data sampling results to clients as a basis for making environmental decisions.

Assure Environmental Laboratories Provide Quality Data

The agency is charged with the responsibility to certify laboratories that conduct tests or submit data to the agency. As a result, Ecology developed and manages an accreditation program to accredit environmental laboratories for analyses in all typical environmental matrices, now including drinking water. The drinking water mission was transferred to Ecology under an April 2002 Memorandum of Agreement between Ecology and the Department of Health. Accreditation helps ensure that environmental laboratories have the demonstrated capability to provide accurate and defensible data. The agency's lab accreditation program is the primary source of lab performance monitoring for the 480 labs in the accreditation program. (Authorizing laws - 43.21A.445 and 70.119A.080 RCW)

Result

Environmental laboratories submitting data to the Department of Ecology and Department of Health have the demonstrated capability to provide accurate and defensible data.

- Evaluate and accredit over 480 environmental laboratories in 29 states and 3 provinces, including 92 drinking water laboratories.
- Assure 100% acceptable performance testing analyses for major permitted wastewater discharge laboratories.
- Regulated laboratories maintain successful quality programs.
- Environmental labs and public health decisions are based on accurate and defensible scientific data.

Conduct Environmental Studies for Pollution Source Identification and Control

The agency conducts pollution studies to address known or suspected problems at individual sites or across regional areas. These studies support agency efforts under the Federal Clean Water Act; Water Pollution Control Act; and Model Toxics

Control Act. The directed studies span the range from water quality sampling, such as for bacteria or dissolved oxygen, to more complex analyses for toxic chemicals, e.g., dioxins in fish tissues or pesticides in groundwater. Many of the studies are water cleanup studies, which calculate the "total maximum daily load" (TMDL) of a pollutant a water body can absorb without causing violations of water quality standards. As part of a lawsuit settlement, the agency entered into a Memorandum of Agreement with the Environmental Protection Agency that requires the agency to develop nearly 1,500 TMDLs by 2013. Study results are published in scientific reports used for regulatory decision making, formulating policy, and protecting and enhancing environmental health.

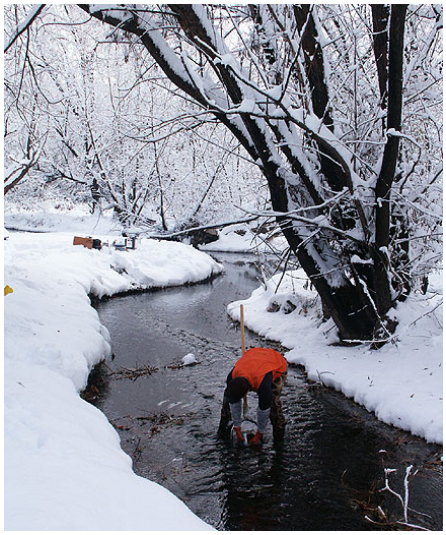
Result

Comprehensive scientific studies are conducted to assess pollution sources and environmental health.

- 100% of study reports are peer-reviewed, completed on schedule, and posted to the Internet.
- Resource managers have credible scientific studies to inform policy decisions on pollution controls needed to protect environmental and public health.

Monitor and Assess the Quality of State Waters and Measure Stream Flows Statewide

The agency has established a statewide environmental monitoring network to assess the current status of state waters, identify threatened or impaired waters, and evaluate changes/trends in water quality over time. This network includes sampling stations in rivers, streams, and marine waters (Puget Sound and coastal estuaries). A significant part of the network was developed under the direction of Chapter 90.71 RCW - Puget Sound Water Quality Protection, which ensured implementation of the Puget Sound Ambient Monitoring Program. The agency also measures and evaluates stream flows in salmon-critical basins and key watersheds statewide, and makes near real-time information available to the public via the agency's Web site.



Result

The health of fresh water rivers, streams, lakes, marine and estuarine water, and marine sediments are assessed statewide.

- Collect monthly samples from 82 fresh water and 35 marine water sites.
- Collect annual samples from 75 randomly-chosen, representative fresh water sites and 40 marine sites.
- Measure near real-time stream flows at 62 sites in critical salmon basins, and continuous flows at 75 other sites statewide.
- Provide real-time stream flow data to watershed and salmon managers via the agency's Web site.
- Alert regional office staff, the Department of Health, the Puget Sound Action Team, and the public to emerging water quality problems, trends, and fecal coliform contamination.
- Track and assess the effectiveness of water cleanup activities.

Major Issues

Sustainability of Environmental Monitoring Programs

Environmental monitoring is an important agency activity. In recent years, new requirements for watershed planning and salmon recovery have increased the demand for reliable water quality and stream flow data throughout the state. However, the sustainability of several of the agency's monitoring programs is in jeopardy. The cumulative effects of budget cuts and escalating costs for services necessary to carry out monitoring have necessitated reductions in some of the agency's core monitoring efforts.

Marine water column and marine sediment monitoring have been particularly hard hit. The problem of shrinking budgets has been exacerbated by increased costs for chartered marine flights, marine vessel rental, and contracted analytical services.

Another area facing upcoming budget problems is stream flow monitoring. The agency has received a significant amount of "one-time" funding from external sources (Salmon Recovery Funding Board, National Fish & Wildlife Foundation) to install stream gauges in priority watersheds and provide grant funding to local entities to assist in maintaining and operating the gauges. Most of this funding dries up by the end of the biennium (June 30, 2005). While an effective network of gauging stations will be in place, the resources to operate and maintain the stations will not be there.

During the 2003-05 biennium, the agency needs to examine its monitoring programs and develop plans to balance available resources against the many demands for environmental information. This effort should determine the level of core environmental monitoring that will be sustainable into the upcoming biennium and beyond.

Maintaining Investment in Water Clean Up Plans

Section 303d of the federal Clean Water Act requires the state to develop water clean up plans (also known as TMDLs – Total Maximum Daily Loads) for water bodies that fail to meet water quality standards. As part of a lawsuit agreement, a memorandum of agreement with the Environmental Protection Agency requires the Department of Ecology to develop nearly 1,500 water clean up plans by 2013.

In recent years, the agency has been successful in obtaining federal funds to develop water clean up plans. However, budgetary pressures on both state and federal funding threaten the agency's ability to maintain the water clean up schedule. General Fund-State budget reductions for the 03-05 Biennium reduced funding for these plans by more than $300,000. Additionally, the next federal grant from the Environmental Protection Agency in support of the clean up schedule may be reduced by roughly $800,000.

In the face of these budget cuts, the agency needs to continue seeking out avenues of support for this program. If the state is unable to meet the terms of the lawsuit agreement, it is possible the federal government may pull back millions of dollars of federal funds in order to implement its own water clean up program. Under a federally-administered program, the state would lose much control over permitting decisions involving point sources of pollution, which would pose hardships on municipalities and industries.

Persistent, Bioaccumulative Toxins

As noted under "Major Activities and Results," the agency received $100,000 to implement the Mercury Reduction and Education Act (House Bill 1002). However, the Legislature also eliminated the $800,000 which previously funded the agency's implementation of its Persistent, Bioaccumulative Toxins (PBT) Strategy.

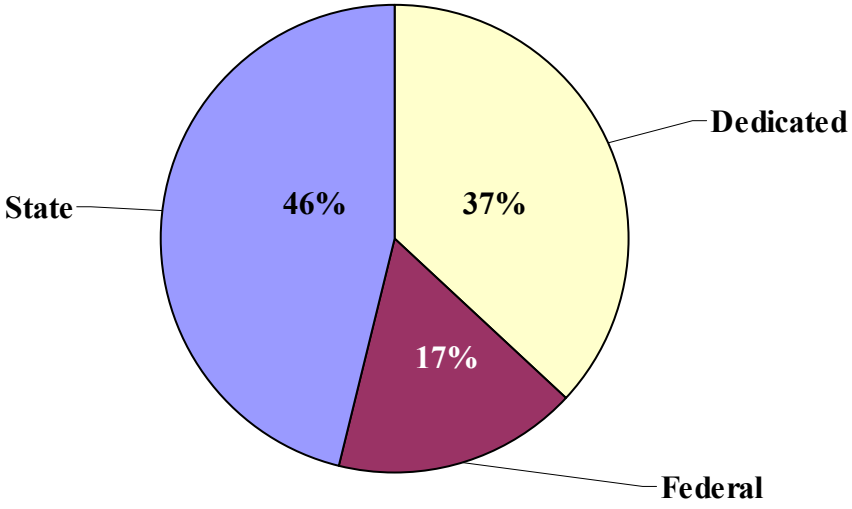
The PBT Strategy is an important cross-program pollution prevention and pollution reduction effort. While House Bill 1002 supports some one-time efforts to reduce the release of mercury into the environment, the reduction of PBTs should be an ongoing effort that expands beyond mercury. In addition, the need for PBT monitoring data remains high. The agency has therefore submitted a request for supplemental budget funding to resume implementation of the PBT Strategy. This funding would allow the agency to fully implement the Mercury Chemical Action Plan, resume monitoring for mercury and other high priority PBTs, and develop a process and criteria to select the next PBT for which to develop a chemical action plan.

Environmental Assessment Program Budget

Budget: $17,717,826; Staffing: 102.8 FTEs

State	($) Amount	Sources	Uses
General Fund – State	8,155,492	Multiple	Water quality monitoring, marine sediment monitoring, streamflow monitoring, technical assistance, monitoring of nonpoint source controls, water cleanup studies, laboratory accreditation
Federal			
General Fund – Federal	3,039,454	Federal grants	Water quality monitoring, marine sediment monitoring, watershed cleanup studies, quality assurance
Dedicated Funds			
General Fund – Private/Local	137,700	Agreements with counties and cities	Water quality studies, laboratory analytical work
State Drought Preparedness Account	608,302	Transfer from Emergency Water Fund	Streamflow monitoring
Water Quality Account	384,443	Excise taxes on cigarettes and other tobacco products, sales tax transfer, loan repayments, interest payments, and state general fund transfer	Streamflow monitoring
State Toxics Control	1,725,752	Hazardous substance tax, remedial actions, and penalties recovered	Groundwater investigations, water cleanup studies, toxics monitoring
Water Quality Permit	3,486,615	Fees on wastewater discharge permits	Groundwater investigations, water cleanup studies, watershed studies, compliance monitoring
Freshwater Aquatic Weeds	180,068	Fees on boat trailers	Technical assistance, monitoring
TOTAL	**$17,717,826**		

Environmental Assessment Program
Dollars by Fund Source



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Dollars by Activtiy